AMENDMENT

New Docket Number:

✓ Please change the Attorney Docket Number in this application to 0240us210.

In the Specification:

    A. Please delete the paragraph entitled "Cross Reference to Related Applications" on page 1 and substitute therefor the following new paragraph:

C1

    This application is a continuation-in-part application of and claims the benefit of and priority to U.S. Patent Application Serial No. 09/415,183, filed October 7, 1999, the disclosure of which is incorporated herein by reference in its entirety for all purposes.

    B. Please delete the paragraph at page 3, lines 14-32 and substitute therefor the following new paragraph:

C2

    The invention also includes an isolated or recombinant nucleic acid, comprising a polynucleotide sequence encoding a polypeptide, wherein the polypeptide comprises the amino acid sequence: CDLPQTHSLG-X_{11}-X_{12}-RA-X_{15}-X_{16}-LL-X_{19}-QM-X_{22}-R-X_{24}-S-X_{26}-FSCLKDR-X_{34}-DFG-X_{38}-P-X_{40}-EEFD-X_{45}-X_{46}-X_{47}-FQ-X_{50}-X_{51}-QAI-X_{55}-X_{56}-X_{57}-HE-X_{60}-X_{61}-QQTFN-X_{67}-FSTK-X_{72}-SS-X_{75}-X_{76}-W-X_{78}-X_{79}-X_{80}-LL-X_{83}-K-X_{85}-X_{86}-T-X_{88}-L-X_{90}-QQLN-X_{95}-LEACV-X_{101}-Q-X_{103}-V-X_{105}-X_{106}-X_{107}-X_{108}-TPLMN-X_{114}-D-X_{116}-ILAV-X_{121}-KY-X_{124}-QRITLYL-X_{132}-E-X_{134}-KYSPC-X_{140}-WEVVRAEIMRSFSFSTNLQKRLRRKE (SEQ ID NO:71), or a conservatively substituted variation thereof, where X_{11} is N or D; X_{12} is R, S, or K; X_{15} is L or M; X_{16} is I, M, or V; X_{19} is A or G; X_{22} is G or R; X_{24} is I or T; X_{26} is P or H; X_{34} is H, Y or Q; X_{38} is F or L; X_{40} is Q or R; X_{45} is G or S; X_{46} is N or H; X_{47} is Q or R; X_{50} is K or R; X_{51} is A or T; X_{55} is S or F; X_{56} is V or A; X_{57} is L or F; X_{60} is M or I; X_{61} is I or M; X_{67} is L or F; X_{72} is D or N; X_{75} is A or V; X_{76} is A or T; X_{78} is E or D; X_{79} is Q or E; X_{80} is S, R, T, or N; X_{83} is E or D; X_{85} is F or L; X_{86} is S or Y; X_{88} is E or G; X_{90} is Y, H, N; X_{95} is D, E, or N; X_{101} is I, M, or V; X_{103} is E or G; X_{105} is G or W; X_{106} is V or M; X_{107} is E, G, or K; X_{108} is E or G; X_{114} is V, E, or G; X_{116} is S or P; X_{121} is K or R; X_{124} is F or L; X_{132} is T, I, or M; X_{134} is K or R; and X_{140} is A or S. Each of the single letters of this amino acid sequence

C 2

represents a particular amino acid residue according to standard practice known to those of ordinary skill in the art.

C. Please delete the paragraph at page 22, line 22- page 23, line 10 and substitute therefor the following new paragraph:

C 3

The invention also includes an isolated or recombinant nucleic acid comprising a polynucleotide sequence encoding a polypeptide, wherein the polypeptide comprises the amino acid sequence: CDLPQTHSLG-X_{11}-X_{12}-RA-X_{15}-X_{16}-LL-X_{19}-QM-X_{22}-R-X_{24}-S-X_{26}-FSCLKDR-X_{34}-DFG-X_{38}-P-X_{40}-EEFD-X_{45}-X_{46}-X_{47}-FQ-X_{50}-X_{51}-QAI-X_{55}-X_{56}-X_{57}-HE-X_{60}-X_{61}-QQTFN-X_{67}-FSTK-X_{72}-SS-X_{75}-X_{76}-W-X_{78}-X_{79}-X_{80}-LL-X_{83}-K-X_{85}-X_{86}-T-X_{88}-L-X_{90}-QQLN-X_{95}-LEACV-X_{101}-Q-X_{103}-V-X_{105}-X_{106}-X_{107}-X_{108}-TPLMN-X_{114}-D-X_{116}-ILAV-X_{121}-KY-X_{124}-QRITLYL-X_{132}-E-X_{134}-KYSPC-X_{140}-WEVVRAEIMRSFSFSTNLQKRLRRKE (SEQ ID NO:71), or a conservatively substituted variation thereof, where X_{11} is N or D; X_{12} is R, S, or K; X_{15} is L or M; X_{16} is I, M, or V; X_{19} is A or G; X_{22} is G or R; X_{24} is I or T; X_{26} is P or H; X_{34} is H, Y or Q; X_{38} is F or L; X_{40} is Q or R; X_{45} is G or S; X_{46} is N or H; X_{47} is Q or R; X_{50} is K or R; X_{51} is A or T; X_{55} is S or F; X_{56} is V or A; X_{57} is L or F; X_{60} is M or I; X_{61} is I or M; X_{67} is L or F; X_{72} is D or N; X_{75} is A or V; X_{76} is A or T; X_{78} is E or D; X_{79} is Q or E; X_{80} is S, R, T, or N; X_{83} is E or D; X_{85} is F or L; X_{86} is S or Y; X_{88} is E or G; X_{90} is Y, H, N; X_{95} is D, E, or N; X_{101} is I, M, or V; X_{103} is E or G; X_{105} is G or W; X_{106} is V or M; X_{107} is E, G, or K; X_{108} is E or G; X_{114} is V, E, or G; X_{116} is S or P; X_{121} is K or R; X_{124} is F or L; X_{132} is T, I, or M; X_{134} is K or R; and X_{140} is A or S. Each of the single letters of this amino acid sequence represents a particular amino acid residue according to standard practice known to those of ordinary skill in the art. Such polypeptides having an antiproliferative activity in the human Daudi cell line-based assay (*e.g.*, at least about 8.3×10^6 units/mg) and/or an antiviral activities in a human WISH cell/EMCV-based assay (at least about 2.1×10^7 units/mg).

D. Please delete the paragraph at page 43, lines 8-17 and substitute therefor the following new paragraph:

In a further example, if four conservative substitutions were localized in the region corresponding to amino acid residues 141-166 of SEQ ID NO:36, examples of conservatively substituted variations of this region,

WEVVR AEIMR SFSFS TNLQK RLRRKE include:

WEVVR SEIMR SFSYS TNLQR RLRRKD (SEQ ID NO:87) and

WELVR AEIVR SFSFS TNLNK RLRKKE (SEQ ID NO:88) and the like, in accordance with the conservative substitutions listed in Table 2 (in the above example, conservative substitutions are underlined). Listing of a protein sequence herein, in conjunction with the above substitution table, provides an express listing of all conservatively substituted proteins.

E. Please delete the paragraph at page 80, lines 23-29 and substitute therefor the following new paragraph:

As an example, if four conservative substitutions were localized in the subsequence corresponding to amino acids 141-166 of SEQ ID NO:71, examples of conservatively substituted variations of this subsequence,

WEVVR AEIMR SFSFS TNLQK RLRRKE, include:

WEVVR SEIMR SFSYS TNLQR RLRRKD (SEQ ID NO:87) and

WELVR AEIVR SFSFS TNLNK RLRKKE (SEQ ID NO:88) and the like, where the conservative substitutions are underlined.

In accordance with 37 CFR §1.121 a marked up version of the above-amended paragraphs illustrating the changes introduced by the forgoing amendments are provided in **Appendix C**.